REMARKS

Claims 1-24 have been examined and stand rejected. By the above amendments, claims 1-3, 5, 13-15 and 17 have been amended. Favorable reconsideration of the application and allowance of all of the pending claims are respectfully requested in view of the above amendments and the following remarks.

The Examiner objects to the drawings and alleges the feature of the "wired OR circuit" are not shown in the drawings. Applicant submits that an embodiment of this feature is shown in block 5 of Fig. 2. Inside block 5, a wired OR gate is clearly shown between the lines carrying signals TS1 and TS2. If either of these lines is high (logical 1), the output line TH will be high. If both of these lines are low (logical 0), the output line TH will be low. In view of this clarification, the Examiner is respectfully requested to reconsider and withdraw the objection to the drawings.

Claims 1, 3-9, 12-13, 15-21, and 24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,373,768 to Woo et al. Further, claims 10-11 and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Woo in view of U.S. Patent No. 6,597,614 to Nam et al. Furthermore, claims 2 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Woo in view of U.S. Publication No. 2002/0131225 to Barrow et al. These rejections are traversed insofar as they apply to the amended claims.

Woo fails to disclose or suggest a device comprising memory modules and a means for determining (claim 1) or a measurer configured to determine (claim 13) a highest temperature of temperatures detected by temperature sensors of the memory modules, wherein the respective temperature of the memory modules is passed to the means for determining (claim 1) or measurer configured to determine (claim 13) the highest temperature as required by independent claims 1 and 13.

The Examiner compares the controller 640 of Woo to the claimed means for determining (measurer) the highest temperature. However, according to Woo, the controller of 640 receives a digital signal from each temperature sensing circuit of the memory devices 610, 620 and 630.

Thus, Woo's controller 640 determines the actual operating temperature of each memory device. In particular, each temperature sensing circuit of Woo outputs a digital signal indicating whether the memory device corresponding to the sensing circuit is operating above a threshold temperature (See column 13, lines 4 - 7 of Woo). Signal lines 655 to 657 of Woo transfer the digital signals to controller 640. Based on the digital signals, Woo's controller 640 initiates a regulation scheme to reduce the temperature of those memory devices indicated as operating above a threshold temperature. According to another embodiment of Woo, the digital signals are transferred to controller 640 via bus 650. Thus, rather than including a means for determining (measurer) a highest temperature among the detected temperatures of the memory modules as required by independent claims 1 and 13, Woo's controller 640 independently evaluates each of the digital signals received from each of the memory devices to initiate a regulation scheme to reduce the temperature of the memory devices indicated as operating above a threshold temperature. Moreover, the circuit structure disclosed in the Woo reference requires an expensive wiring scheme (See column 12, lines 44 - 58 and column 13, lines 7 - 13).

Likewise, Woo fails to disclose a method for controlling one or more memory modules, wherein the method comprises transmitting temperature signals from memory modules to a means for determining (claim 3) or a measurer configured to determine (claim 15) a highest temperature, the temperature signals corresponding to respective temperatures of the memory modules; and determining the highest temperature of the memory modules from the transmitted temperature signals as required by independent claims 3 and 15. Rather, as discussed above, Woo discloses a method for independently evaluating digital signals received from each of a plurality of memory devices (610, 620 and 630) via a controller (640) to initiate a regulation scheme to reduce the temperature of the memory devices (610, 620 and 630) indicated as operating above a threshold temperature.

In summary, Woo does not disclose a means for determining (claim 1) or a measurer configured to determine (claim 13) the highest temperature and memory modules outputting a respective temperature of the memory modules being passed to the means for determining (claim 1) or the measurer configured to determine (claim 13) the highest temperature. Rather, Woo

disclose a device and method that each temperature sensing circuit outputs a digital signal indicating whether the memory device corresponding to the sensing circuit is operating above a threshold temperature wherein the plurality of the digital signals is passed by a complex wiring structure to the controller for evaluating and initiating a temperature regulation scheme.

Since Woo does not disclose, teach or suggest these features, the subject matter of independent claims 1, 3, 13, and 15 and their dependent claims is not anticipated by and would not have been obvious from Woo. Accordingly, the Examiner is requested to reconsider and withdraw this rejection.

Regarding claims 10-11 and 22-23, the Examiner relies on the Nam patent to disclose converting a temperature into frequency-code signal and a pulse-width-code signal for the purpose of effectively detecting each different temperature. Briefly, Nam discloses a self refresh circuit for a semiconductor memory device that can reduce the power consumption by varying a self refresh period according to a data holding time of a cell varied by a temperature (see Abstract of Nam). However, Nam does not compensate for the deficiencies of Woo with regard to independent claims 3 and 15 as discussed above. Therefore, since claims 10-11 and 22-23 depend directly from independent claims 3 and 15, these claims are considered to be in condition for allowance. Accordingly, the Examiner is requested to reconsider and withdraw this rejection.

Regarding claims 2 and 14, the Examiner relies on the Barrow publication to disclose combining temperature signals by an OR circuit for the purpose of outputting a high logic signal when one or both temperature signals are high. Briefly, the Barrow publication is directed towards a semiconductor device including a protection circuit in response to a sampling pulse to detect a fault condition of the semiconductor device, and an output for producing a control signal when a fault condition is detected. Barrow's device includes a fault protection circuit 12 with a temperature sensing circuit that responds to heat flowing from a utility circuit 20 along a thermal path 40 of substrate 41 to produce a sense signal representative of the local temperature. Barrow's sense signal is compared to a reference signal to produce control signal $V_{control1}$. Burrow further discloses, when an overheating fault condition occurs, i.e., when the local temperature is greater than a predetermined level control signal, $V_{control1}$ is set to a logic high and

routed through OR gate 28 as deactivation signal V_c to initiate a corrective action (see paragraph **[0012]** of Barrow).

The Examiner compares control signal $V_{control1}$ of Barrow to the detected temperatures signals of the present invention and further compares Barrow's deactivation V_c signal to the determined highest temperature of the present invention. However, Barrow's control signal $V_{control1}$ is not a signal representative of a detected temperature as required by independent claims 1 and 13 but rather a signal representing the status of a detected temperature as compared to a reference signal (see paragraph [0012] of Barrow). Likewise, Barrow's deactivation V_c signal is not a determined highest temperature as required by independent claims 1 and 13 but rather a signal representing the collective status of the detected temperatures as compared to their respective reference signals. Therefore, Barrow does not compensate for the deficiencies of Woo with regard to independent claims 1 and 13 as discussed above. Moreover, since claims 2 and 14 depend directly from independent claims 1 and 13, these claims are considered to be in condition for allowance. Accordingly, the Examiner is requested to reconsider and withdraw this rejection.

In view of the foregoing, Applicant respectfully requests the Examiner to find the application to be in condition for allowance with claims 1-24. However, if for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is respectfully requested to call the undersigned attorney to discuss any unresolved issues and to expedite the disposition of the application.

Applicant hereby petitions for any extension of time that may be necessary to maintain the pendency of this application. The Commissioner is hereby authorized to charge payment of any additional fees required for the above-identified application or credit any overpayment to Deposit Account No. 05-0460.

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